



US009543463B2

(12) **United States Patent**
Leobandung et al.

(10) **Patent No.:** **US 9,543,463 B2**
(45) **Date of Patent:** **Jan. 10, 2017**

(54) **SIGNAL DISTRIBUTION IN INTEGRATED CIRCUIT USING OPTICAL THROUGH SILICON VIA**

H01L 2924/12043; H01L 31/1105; G02B 6/43

See application file for complete search history.

(71) Applicant: **International Business Machines Corporation**, Armonk, NY (US)

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(72) Inventors: **Effendi Leobandung**, Stormville, NY (US); **James D. Warnock**, Somers, NY (US); **Dieter Wendel**, Schoenaich (DE)

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(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(21) Appl. No.: **14/524,569**

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(22) Filed: **Oct. 27, 2014**

(65) **Prior Publication Data**

US 2016/0118528 A1 Apr. 28, 2016

(Continued)

(51) **Int. Cl.**

H01L 27/15 (2006.01)
H01L 31/12 (2006.01)
H01L 31/153 (2006.01)
H01L 31/167 (2006.01)
H01L 31/0232 (2014.01)
H01L 31/105 (2006.01)
H01L 31/107 (2006.01)

(Continued)

Primary Examiner — John C Ingham

Assistant Examiner — Ismail Muse

(74) *Attorney, Agent, or Firm* — Louis J. Percello; Ryan, Mason & Lewis, LLP

(52) **U.S. Cl.**

CPC **H01L 31/167** (2013.01); **H01L 31/02327** (2013.01); **H01L 31/105** (2013.01); **H01L 31/107** (2013.01); **H01L 31/1105** (2013.01); **H01L 31/18** (2013.01); **H01S 5/02252** (2013.01)

(57)

ABSTRACT

An optical through silicon via is formed in a silicon substrate of an integrated circuit. A photo detector is formed within the integrated circuit and is optically coupled to a first side of the optical through silicon via. A light generating source optically coupled to a second side of the optical through silicon via is provided. The photo detector is configured to receive a light, generated by the light generating source, propagating through the optical through silicon via. The light, generated by the light generating source, is controlled by a signal generated by a signal generating source.

(58) **Field of Classification Search**

CPC .. H01L 31/0232; H01L 21/768; H01L 25/167;

11 Claims, 5 Drawing Sheets

